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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/500,229

06/25/2004

Raimund Kram

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EXAMINER

HARTMAN JR, RONALD D

ART UNIT

PAPER NUMBER

2121

NOTIFICATION DATE

DELIVERY MODE

05/27/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptomailnyc@kslaw.com

Office Action Summary	Application No. 10/500,229	Applicant(s) KRAM ET AL.	
	Examiner Ronald D. Hartman Jr.	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22-29, 32-37 and 39-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Distler et al., U.S. Patent No. 5,028,855.

As per claim 22, Distler et al., teaches a method comprising:

- providing time or position based profiles (e.g. Figures 2-5); and
- providing argument or function variables associated with the profiles w/o units (e.g. Figures 2-5).

As per claims 23 and 25, Distler et al. teaches an automation system comprising:

- a profile, for movement control, that is prescribed as a spline interpolation (e.g. Abstract), the profile comprising at least one command variable (e.g. Figure 2 element “x” on the x axis) and a secondary variable (e.g. Figure 2 element “y” on the y axis), the command variable representing a physical variable that is different from the second variable and at least one of the variables being time dependent or location dependent (e.g. clearly one variable is different from the other since one represents movement in the x direction and one represents movement in the y direction; also, clearly the variables are location dependent).

As per claim 24, Distler et al. teaches the movement profile being freely parameterized or created (e.g. see Figures 2-5).

As per claim 26, Distler et al. teaches the spline being a polynomial (e.g. C2 L58-60).

As per claim 27, Distler et al. teaches the utilization of third degree polynomials (e.g. C2 L64-68).

As per claim 28, Distler et al. teaches the utilization of a trigonometric element (e.g. C4 L53).

As per claim 29, Distler et al. teaches utilizing a plurality of segments (e.g. Abstract) formed from mathematical functions (e.g. C3 L1-3, C4 L4 and C4 L23).

As per claim 32, Distler et al. teaches movement control of a machine element (e.g. See Figure 1 element R) associated with an axis (e.g. Figure 2).

As per claims 33-34, the rejection of claims 23 and 25 is applied herein. Also, the rejection of claims 24 and 32 are applied herein.

As per claim 35, the rejection of claim 26 is applied herein.

As per claim 36, the rejection of claim 28 is applied herein.

As per claim 37, the rejection of claim 29 is applied herein.

As per claims 39-40, Distler et al. teaches a variable associated with the position (or movement) along an axis (e.g. Figures 2-5).

As per claim 41, Distler et al. teaches the movement profile not using units (e.g. See Figures 2-5).

As per claim 42, Distler et al. teaches a program defining the profile (e.g. C1 L53-63).

As per claim 43, Distler et al. teaches a graphic tool (e.g. Figures 2-5).

As per claim 44, the rejection of claims 23 and 25 are applied herein.

As per claims 45-47, it appears the applicant is claiming a computer system (e.g. program and memory) for accomplishing and utilizing the movement profiles. These features are believed to be adequately disclosed by Distler et al.'s disclosure of a numerical control system using a program (e.g. C1 L53-63). Also the rejection of claims 22-25 are applied herein.

As per claim 48, Distler et al. teaches the command variable and secondary variable being position (e.g. See Figures 2-5).

As per claim 49, the rejection of claims 26 and 28 are applied herein.

As per claim 50, Distler et al. teaches the utilization of a cubic spline (e.g. C4 L4 and C4 L23).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30-31 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Distler et al., as applied above, in view of Heber et al., U.S. Patent No. 6,701,210.

As per claims 30-31 and 38, Distler et al. does not specifically teach unconnected segments being connected by spline interpolations.

Heber et al., U.S. Patent No. 6,701,210 teaches these features (e.g. Figure 1).

It would have been obvious to include the features of Heber et al. into Distler et al. for the purpose of allowing an optimized move strategy that allows each segment of movement to be optimized.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D. Hartman Jr. whose telephone number is (571) 272-3684. The examiner can normally be reached on Mon.-Fri., 11:00 - 8:30 pm, EST.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ronald D Hartman Jr./

Primary Examiner, Art Unit 2121

May 19, 2008

RDH